Supplementary Instructions

STORCK-RADDAR Pedelec

STORCK BICYCLE

RADDAR

Please read page 5 - 7 before your first ride!

Please perform the functional check on page 8 - 11 before every ride!

Be sure to read also your STORCK user manual mountain bike!

Some Notes on this Supplementary Instructions

Pay particular attention to the following symbols:

Danger

This symbol indicates an imminent risk to your life or health unless you comply with the instructions given or take preventive measures.

Attention

This symbol warns you of wrongdoings which may result in damage to property and environment.

Note

This symbol provides you with information about how to handle the product or refers to a passage in the operating instructions that deserves your special attention.

The described possible consequences will not be repeated in the supplementary instructions every time one of the symbols appears.

These supplementary instructions are not intended to help you assemble a STORCK-RADDAR pedelec from individual components, to repair it or to make a partly assembled STORCK-RADDAR pedelec ready-for-use.

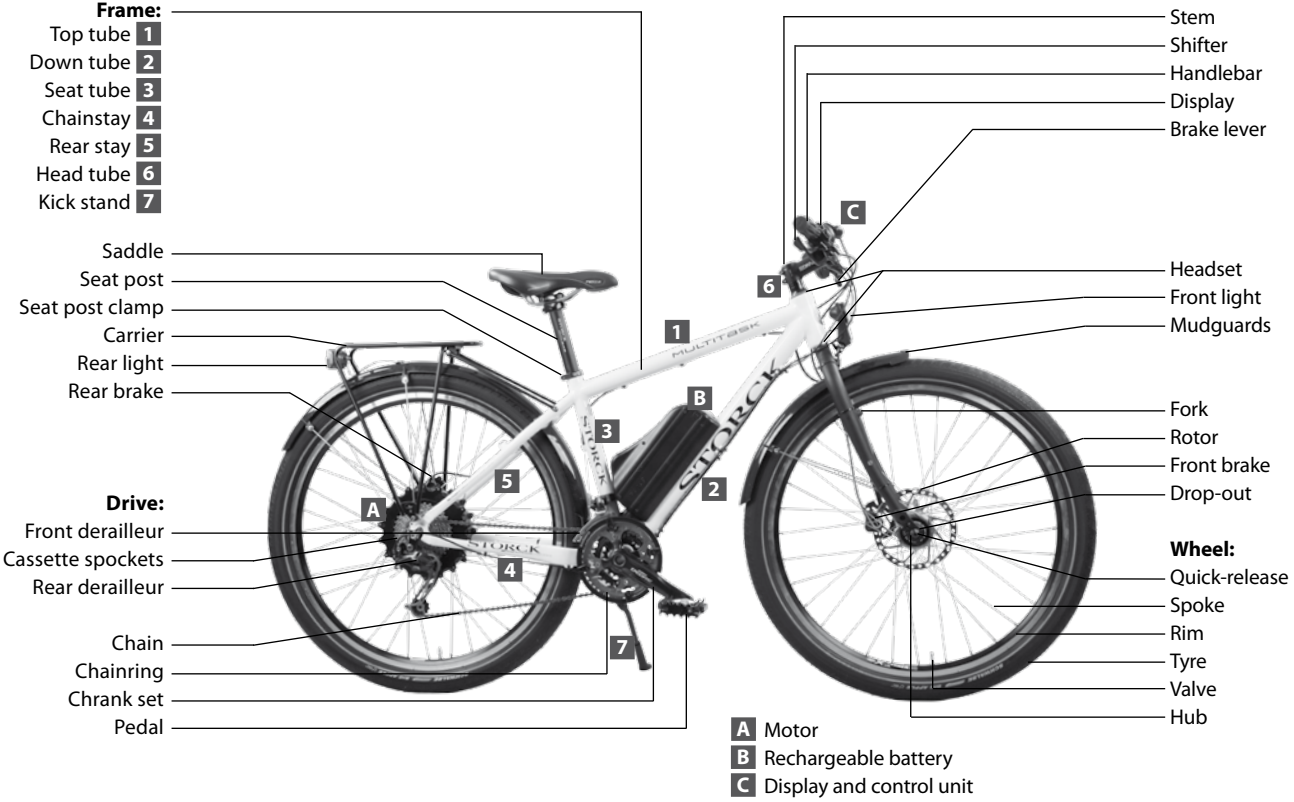
These supplementary instructions are not applicable to any other than the displayed STORCK-RADDAR pedelec.

Be sure to read also the STORCK user manual mountain bike that you have received from your STORCK dealer

Technical details in the text and illustrations of these supplementary instructions are subject to change.

These supplementary instructions comply with the requirements of the European standard EN 15194 for bicycles – electrically power assisted cycles (EPAC).

Also observe the enclosed operating instructions of the component manufacturers. The present manual is subject to European law. If delivered to countries outside Europe, supplementary information has to be provided by the bicycle manufacturer.


Frame:
Top tube 1
Down tube 2
Seat tube 3
Chainstay 4
Rear stay 5
Head tube 6
Kick stand 7
Saddle
Seat post
Seat post clamp
Carrier
Rear light
Rear brake
Drive:
Front derailleur
Cassette spockets
Rear derailleur
Chain
Chainring
Chrank set
Pedal
Stem
Shifter
Handlebar
Display
Brake lever
Headset
Front light
Mudguards
Fork
Rotor
Front brake
Drop-out
Wheel:
Quick-release
Spoke
Rim
Tyre
Valve
Hub
A Motor
B Rechargeable battery
C Display and control unit

Control Unit

LED indicating the voltage state

On/off rocker switch

Thumb lever for setting of drive assistance

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DEAR CUSTOMER,

In purchasing this STORCK-RADDAR pedelec you have chosen a product of high quality and technology. Each component of your new STORCK-RADDAR pedelec has been designed, manufactured and assembled with great care and expertise. Your STORCK dealer gave the STORCK-RADDAR pedelec its final assembly and adjustment to guarantee proper operation and many enjoyable riding experiences with complete peace of mind from the very first metres.

This manual contains a wealth of information on the proper use of your STORCK-RADDAR pedelec, its maintenance and operation as well as interesting information on its design and engineering. Please read these instructions thoroughly. We are sure that even if you have been cycling all your life you will find useful and detailed information. Therefore, before setting off on your new STORCK-RADDAR pedelec, be sure to read at least chapters **"Before Your FIRST Ride"**, **"Riding a STORCK-RADDAR Pedelec – Special Features"** and **"Operation and Displays"**.

To have as much fun as possible during cycling, be sure to carry out the functional check described in chapter **"Before EVERY Ride"** before setting off.

Even a manual as big as an encyclopaedia could not describe any possible combination of pedelec models and components or parts on the market. It therefore focuses on your newly purchased STORCK-RADDAR pedelec and standard components and provides useful information and warnings.

When doing maintenance or repair work, be aware that the detailed instructions provided in your manual only refer to this STORCK-RADDAR pedelec .

The information included here is not applicable to any other pedelec type. As bicycles come in a wide varity of designs with frequent model changes, the routines described may require complementary information. Be sure to also observe the STORCK user manual mountain bike as well as the instructions of the component suppliers that you have received from your STORCK dealer.

Be aware that these instructions may require further explanation, depending on the experience and/or skills of the person doing the work. For some jobs you may require additional (special) tools or supplementary instructions. This manual cannot teach you the skills of a bicycle mechanic.

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Before you set off, let us point out a few things that are very important to every cyclist: Never ride without a properly adjusted helmet and without glasses and take care to always wear suitable clothing. As a minimum you should wear straight cut trousers and shoes fitting the pedal system. Always ride carefully on public roads and observe the traffic rules so as not to endanger yourself or others.

This manual cannot teach you how to ride. Please be aware that cycling is a hazardous activity that requires the rider to stay in control of his or her STORCK-RADDAR pedelec at all times.

Like any sport, cycling involves the risk of injury and damage. Keep this in mind. When you decide to ride a STORCK-RADDAR pedelec you need to accept the risk inherent to cycling. Please note that on a STORCK-RADDAR pedelec you have no protection technique around you (e.g. bodywork, ABS or airbag) like you have in a car. Therefore, always ride carefully and do respect the other traffic participants. Never ride under the influence of prescription drugs, drugs, medicals, alcohol or when you are tired. Do not ride with a second person on your STORCK-RADDAR pedelec and never ride without having both hands on the handlebars.

Observe the legal regulations concerning off-road cycling. These regulations may differ in each country. Please respect nature when riding off-road. Only use your bicycle on signposted, well maintained trails and hard-surface roads.

First we would like to familiarise you with the various components used on your STORCK-RADDAR pedelec. Please unfold the cover of the supplementary instructions of this STORCK-RADDAR pedelec. Here your will find the diagram of a STORCK-RADDAR pedelec including rechargeable battery, control unit and charger as well as all the essential components. Leave the page unfolded as you read so that you can easily locate the components as they are referred to in the text.

Read in any case the STORCK user manual mountain bike that you have received from your STORCK dealer.

For your own safety, never do work on your bicycle unless you feel absolutely sure about it. If you are in doubt or if you have any questions, contact your STORCK dealer.

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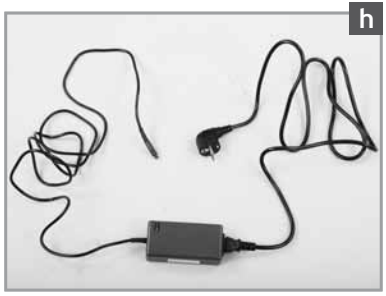

INTENDED USE

Keep in mind that every bicycle type is built for a specific intended use. Be sure to use your STORCK-RADDAR pedelec only according to its intended use, as it may otherwise not withstand the stress, fail and cause an accident with unforeseeable consequences! Using it for another than the intended use will void the warranty.

Pedelecs (**p**edal **e**lectric **c**ycles) are bicycles with auxiliary motor that only switches on when the pedals are moved by the rider. You do not need a driver's licence for riding a pedelec, if the motor assistance switches off automatically at a speed of 25 km/h (15 mph).

Your STORCK-RADDAR pedelec complies with these conditions.

Unlimited use of cycle lanes is permitted with your STORCK-RADDAR pedelec. Wearing a helmet is recommended, but not compulsory.

STORCK-RADDAR pedelecs are designed for cycling exclusively on lanes and roads with a smooth surface. Only use trails that are allowed for bicycles. STORCK-RADDAR pedelecs are not suitable for off-road use. Using your STORCK-RADDAR pedelec off-road can result in crashes with unforeseeable consequences.

For more information about the intended use of your STORCK-RADDAR pedelec as well as the permitted overall weight (rider, STORCK-RADDAR pedelec and baggage) see the bicycle card. The bicycle card also shows whether your STORCK-RADDAR pedelec is approved for trailer and child carrier mounting.

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BEFORE YOUR FIRST RIDE

1. The STORCK-RADDAR pedelec is designed for a maximum overall weight including rider, baggage and pedelec. The maximum overall weight is specified in the bicycle card enclosed with this manual; if it is not, contact your STORCK dealer.

2. If you want to use your bicycle on public roads, it has to comply with the respective legal requirements. These requirements may vary in each country. The fittings of your STORCK-RADDAR pedelec are, therefore, not necessarily complete. Ask your STORCK dealer for the laws and regulations applicable in your country or in the country you intend to use the STORCK-RADDAR pedelec. Have your STORCK-RADDAR pedelec equipped accordingly, before using it on public roads.

3. The rechargeable battery of your STORCK-RADDAR pedelec must be charged **(e)** before you set off for the first time.

   Are you familiar with the handling and mounting of the rechargeable battery **(f)**? Before you set off for the first time, check whether the battery is properly mounted, that it has engaged audibly and that it is locked.

   For more information see chapter **"Rechargeable Battery"**.

4. The control unit of your STORCK-RADDAR pedelec has various functions **(g+h)**. Are you familiar with all functions and displays?

   Check whether you know the function of all buttons on the control unit.

   For more information see chapter **"Operation and Displays"**.

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5. Are you familiar with the brake system (a)? Have a look at the bicycle card and check whether the brake lever of the front brake is on the side you are used to (right or left). If it is not, have it modified by your STORCK dealer before you set off for the first time. Otherwise, you will need to learn to get used to it, as inadvertent use of the front brake can throw you off your bicycle.

   Your new STORCK-RADDAR pedelec is equipped with modern brakes which may be far more powerful than those you were used to so far. Be sure to first practise using the brakes on a level, non-slip surface off public roads.

   For more information see chapter **"Brake System"** of your STORCK user manual mountain bike and the enclosed operating instructions.

6. Are you familiar with the type and functioning of the gears (b)? Ask your STORCK dealer to explain you the gear system and make yourself familiar with your new gears in an area free of traffic, if necessary.

   For more information see chapter **"Gears"** of your STORCK user manual mountain bike and the enclosed operating instructions.

7. Are both saddle and handlebars properly adjusted? The saddle should be set to a height from which you can just reach the pedal in its lowest position with your heel. Check whether your toes reach to the floor when you are sitting on the saddle (c). Your STORCK dealer will be pleased to help you, if you are not happy with your seating position.

   For more information see chapter **"Adjusting the Bicycle to the Rider"** of your STORCK user manual mountain bike.

8. If your STORCK-RADDAR pedelec is equipped with clipless or step-in pedals (d): Have you ever tried the shoes they go with? Do not set off until you have practised engaging and disengaging the shoes from the pedals in stationary. Ask your STORCK dealer to explain you the pedals.

   For more information see chapter **"Pedals and Shoes"** of your STORCK user manual mountain bike and the enclosed operating instructions.

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9. If you have bought a STORCK-RADDAR pedelec with suspension **(e+f)**, you should ask your STORCK dealer to adjust the suspension mechanism to your needs before delivery. Improperly adjusted suspension components are liable to malfunction or damage. In any case they will impair the performance of your bicycle as well as your safety and joy whilst cycling.

   For more information see chapters **"Suspension Forks"**, **"Rear Shock"** and **"Suspension Seat Posts"** of your STORCK user manual mountain bike. Further instructions regarding full suspension bicycles and forks are possibly enclosed with this manual.

A lack of practice when using clipless pedals or too much spring tension in the mechanism can lead to a very firm connection, from which you cannot quickly step out. Risk of accident!

When mounting your STORCK-RADDAR pedelec, make sure not to step in the pedals until you sit in the saddle and gripping the handlebars tight. The motor assistance might switch on suddenly and result in an uncontrolled start of your STORCK-RADDAR pedelec. Risk of accident!

Be aware that the distance you need to stop your bicycle may increase, when you are riding with your hands on bar ends (g) or on multi position handlebars. The brake levers are not always within easy reach.

Please note that in wet conditions the brake performance is less effective and the tyre grip reduced. Keep this fact in mind in particular when riding on a wet road and do not ride as fast as you would in dry conditions.

Make particularly sure there is enough space between your crotch and the top tube (h) so that you do not hurt yourself, if you have to get off your bicycle quickly.

STORCK-RADDAR pedelecs are not approved for towing trailers and mounting child carriers!

The weight distribution on STORCK-RADDAR pedelecs differs markedly from the weight distribution on bicycles without drive assistance. Due to the rear wheel motor it is much heavier in the rear than in the front. For this reason lifting and carrying the STORCK-RADDAR pedelec is more difficult. Bear this in mind when loading your pedelec into a car and unloading it or when mounting it on a bicycle carrier system.

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BEFORE EVERY RIDE

Your STORCK-RADDAR pedelec has undergone numerous tests during production and a final check has been carried out by your STORCK dealer. Nevertheless, be sure to check the following points before every ride to exclude any malfunctioning that may be due to the transport of your STORCK-RADDAR pedelec or to the work a third person may have performed on your STORCK-RADDAR pedelec before delivery:

1. Are the quick-release levers **(a)** or bolted connections of the front and rear wheel properly closed and the bolts of the seat post and other components accurately tightened?

   For more information see chapter **"How to Use Quick-Releases"** of your STORCK user manual mountain bike and the enclosed operating instructions.

2. Are the connections of the rechargeable battery, the control unit and the motor correctly plugged **(b)**?

   For more information see chapter **"Rechargeable Battery"** and **"Operation and Displays"**.

3. Is your battery fully charged **(c)**? Keep in mind to entirely recharge the battery after every ride. You need not wait until the battery is empty!

   For more information see chapter **"Charging the Battery"**.

4. Does the control unit show all values **(d)**? Is there any error message or warning on the control unit? Check the values are correct on your control unit before every ride. Do not set off on your STORCK-RADDAR pedelec when the control unit shows a warning.

   This function is planned to be available with the new generation of control units presumably introduced from model year 2012 on.

   For more information see chapter **"Operation and Displays"**.

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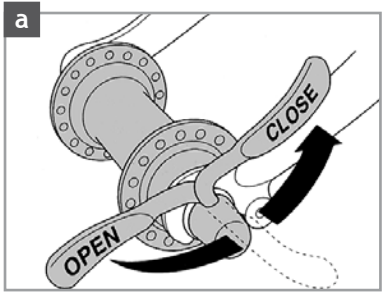

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5. Is the battery tight in its mounting (e) and is it locked correctly (f)? Never set off with a loose and unlocked battery.

   For more information see chapter **"Mounting the Battery"**.

6. Are the tyres in good condition and do they have sufficient pressure? The minimum and maximum pressure (in bar or PSI) is indicated on the tyre side (g).

   For more information see chapter **"Wheels and Tyre Equipment"** of your STORCK user manual mountain bike and the enclosed operating instructions.

7. Spin the wheels to check whether the rims are true. Watch the gap between rim and brake pad or, in the case of disc brakes, between frame and rim or tyre. Untrue rims can be an indication of tyres with ruptured sides or broken axles or spokes.

   For more information see chapter **"Wheels and Tyre Equipment"** of your STORCK user manual mountain bike and the enclosed operating instructions.

8. Test the brakes in stationary by firmly pulling the brake levers towards the handlebars (h). The brake pads of rim brakes must hit the rim evenly with their entire surface without touching the tyre during braking or in open condition or in between. Make sure you cannot pull the brake levers all the way to the handlebars and check the hydraulic brake cables for leaks. Check the thickness of the brake pads, as well.

   With disc brakes you should directly get a positive braking response. If you have to actuate the brake lever more than once to get a positive braking response, have the STORCK-RADDAR pedelec checked by your STORCK dealer.

   For more information see chapter **"Brake System"** of your STORCK user manual mountain bike and the enclosed operating instructions.

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9. Let your STORCK-RADDAR pedelec bounce on the ground from a height of about 3 to 5 cm. If there is any rattling, see where it comes from. Check the bearings, the bolts and the proper seat of the battery **(a)**, if necessary.

10. If you want to ride on public roads, make sure your STORCK-RADDAR pedelec is equipped according to the regulations of your country **(b)**. Riding without lights and reflectors in dark or dim conditions is very dangerous, because you will be seen too late or not at all by other road users. A lighting set that corresponds to the regulations is a must on public roads. Turn on the lights as soon as dusk sets in.

    For more information see chapter **"Legal Requirements for Riding on Public Roads"** of your STORCK user manual mountain bike.

11. If your STORCK-RADDAR pedelec has suspension, check it as follows: Press down on your STORCK-RADDAR pedelec and see whether the spring elements retract and extend as usual.

    For more information see chapters **"Suspension Forks"**, **"Rear Shock"** and **"Suspension Seat Posts"** of your STORCK user manual mountain bike.

12. If your bicycle has a kick-stand, make sure it is fully raised **(c)** before you set off. Risk of accident!

13. Do not forget to take a high quality D- or chain lock **(d)** with you on your ride. The only way to effectively protect your STORCK-RADDAR pedelec against theft is to lock it to an immovable object.

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Improperly closed quick-releases and other fastenings **(e+f)** ***can cause components of the STORCK-RADDAR pedelec to come loose and result in serious accidents!***

Do not use your STORCK-RADDAR pedelec, if it fails on one of these points! Riding a defective STORCK-RADDAR pedelec can result in serious accidents! If you are in doubt or if you have any questions, contact your STORCK dealer.

During use your STORCK-RADDAR pedelec is undergoing stress resulting from the surface of the road and through the rider's action. Due to these dynamic loads, the different parts of your bicycle react with wear and fatigue. Please check your STORCK-RADDAR pedelec regularly for wear marks, scratches **(g)**, ***deformations, colour changes and any indication of cracking. Components which have reached the end of their service life may break without previous warning. Let your dealer maintain and service your STORCK-RADDAR pedelec regularly and in cases of doubt it is always best to replace components.***

AFTER AN ACCIDENT

1. Check whether the wheels are still firmly fixed in the drop-outs **(h)** and whether the rims are still centred with respect to the frame or fork. Spin the wheels and observe the gap either between brake pads and rim sides or between frame and tyre.

   If the width of the gap changes markedly and you have no way to true the rim where you are, you will need to release the rim brake a little so that the rim can run between the brake pads without touching them. Please note that in this case the brakes may not act as powerfully as you are used to.

   For more information see chapters **"Brake System"**, **"How to Use Quick-Releases"** and **"Wheels and Tyre Equipment"** of your STORCK user manual mountain bike as well as the enclosed operating instructions.

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2. Check that handlebars and stem are neither bent nor broken and that they are level and upright **(a)**. Make sure the stem is firmly fixed on the fork by trying to turn the handlebars relative to the front wheel **(b)**. Briefly lean on the brake levers to make sure the handlebars are firmly fixed in the stem.

   Realign the components, if necessary, and carefully tighten **(c)** the bolts to ensure a reliable clamping of the components. The maximum torque values are printed directly on the components or specified in the enclosed operating instructions.

   For more information see chapters **"Adjusting the Bicycle to the Rider"**, **"Headset"** of your STORCK user manual mountain bike and the enclosed operating instructions.

3. Check whether the chain still runs on the chainrings and the sprockets. If your STORCK-RADDAR pedelec fell over to the chain side, verify the proper functioning of the gears. Ask somebody to lift the STORCK-RADDAR pedelec by the saddle and carefully shift through all the gears. Pay particular attention when shifting to the small gears and make sure the rear derailleur does not get too close to the spokes **(d)** as the chain climbs onto the larger sprockets.

   If the rear derailleur or the drop-outs/derailleur hanger are bent, the rear derailleur may collide with the spokes. This can result in damage to the rear derailleur, the rear wheel and the frame.

   Check the function of the front derailleur, as a displaced front derailleur can throw off the chain, thus interrupting the drive of the STORCK-RADDAR pedelec.

   For more information see chapter **"Gears"** of your STORCK user manual mountain bike and the enclosed operating instructions.

4. Make sure the saddle is not out of alignment using the top tube or the bottom bracket shell as a reference. If necessary, open the clamp, realign the saddle and retighten the clamp **(e)**.

   For more information see chapters **"Adjusting the Bicycle to the Rider"**, **"How to Use Quick-Releases"** of your STORCK user manual mountain bike and the enclosed operating instructions.

5. Check the battery **(f+g)**. If the battery is no longer properly in its mounting or shows any damage, do not use your STORCK-RADDAR pedelec. A damaged battery can result in the STORCK-RADDAR pedelec being suddenly without drive. Risk of accident! Damage to the outer shell of the battery can result in water or moisture entry and short circuits or electric shocks. The rechargable battery may catch fire or even explode! In such a case, contact your STORCK dealer immediately.

   For more information see chapter **"Rechargeable Battery"**.

6. Lift your STORCK-RADDAR pedelec up a few centimetres and let it bounce onto the ground. If this causes any sort of noise, search for loosened bolts or components. Retighten them, if necessary.

7. Check whether the values shown on the control unit are correct and complete **(h)**. Do not use your STORCK-RADDAR pedelec, if the control unit shows an error message or a warning.

   Do not set off on your STORCK-RADDAR pedelec when the control unit shows a warning. In such a case, contact your STORCK dealer immediately.

   For more information see chapter **"Operation and Displays"**.

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8. Finally, take a good look at the whole STORCK-RADDAR pedelec **(a)** to detect any deformations, colour changes or cracks.

   Ride back very carefully by taking the shortest route possible, even if your STORCK-RADDAR pedelec went through this check without any problems. Do not accelerate or brake hard and do not ride your bicycle out of the saddle. If you are in doubt about the performance of your STORCK-RADDAR pedelec, have yourself picked up by car, instead of taking any risk.

   Back home you need to check your STORCK-RADDAR pedelec thoroughly. The damaged parts must be repaired. Ask your STORCK dealer for help.

   For more information about carbon components see chapter **"Carbon – Important Information"** of your STORCK user manual mountain bike.

Deformed components, especially components made of aluminium, can break without previous warning. They must not be repaired, i.e. straightened, as the imminent risk of breakage will remain. This applies in particular to the fork, the handlebars, the stem, the cranks, the seat post and the pedals. When in doubt, it it always recommendable to have these components replaced, as your safety comes first. Ask your STORCK dealer for help.

If your STORCK-RADDAR pedelec is assembled with carbon components (b), it is imperative that you have your STORCK-RADDAR pedelec checked by your STORCK dealer after an accident or similar incident. Carbon is an extremely strong material which combines high resistance with low weight. It is, however, one of the inherent properties of carbon that possible overstress may compromise the inner carbon-fibre structure (c) without showing any visible deformation as is the case with steel or aluminium. A damaged component can fail without previous warning. Risk of accident!

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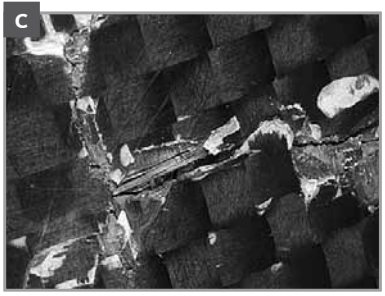

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RIDING A STORCK-RADDAR PEDELEC – SPECIAL FEATURES

Your STORCK-RADDAR pedelec is designed to be used like a conventional bicycle. The unique riding experience, however, starts when you actuate the on/off rocker switch at the control unit. At that moment the assistance generated by the 250 W motor in the rear wheel hub **(d)** increases the stronger you pedal. And when braking and rolling downhill the rechargeable battery will be supplied automatically with energy and hereby extend the range of your STORCK-RADDAR pedelec.

Riding with Drive Assistance

The auxiliary drive can be switched on at any time, even during the ride. Push the on/off rocker switch at the control unit **(e)** to position "I". The patented magnetic field sensor in the rear wheel hub will then measure permanently and without delay how strong you pedal; and the motor will provide assistance up to a torque of 35 Nm. This assistance starts when you set off and is interrupted at the moment you stop pedalling.

The degree of assistance can be determined by shifting the push lever at the control unit; it ranges continuously from low ("L") **(f)** to full assistance ("H") **(g)**.

The drive assistance is provided until the maximum permitted speed of 25 km/h (15 mph) is reached and gently stopped up to this limit. From approx. 25 km/h (15 mph) on the drive switches into the recuperation mode. Please note in this connection the following:

- Do not exceed a maximum speed of 45 km/h (28 mph) when riding downhill. Otherwise you run the risk of blowing the fuse of the recuperation power. This risk is particularly accute with the auxiliary drive being switched off. Replacing the fuse it a job that must be carried out by a STORCK dealer.
- Do not make long downhill rides with a fully charged battery. You also run the risk of blowing the fuse of the recuperation power.

The drive assistance is independent of the chosen gear ratio and cadence. Even though modern gear derailleurs **(h)** allow gear changes under load, it is recommended that you reduce the pedal force a litte before shifting, in particular before shifting the front derailleur.

Range

How long and how far you can benefit from the auxiliary drive depends on several factors, i.e. the road conditions, the weight of rider and additional load, the rider's pedal force, the degree of assistance, (head) winds, frequent stops, the temperature, weather conditions, etc.

With average terrain and load the expected range varies between 40 and 60 km (25 and 37 miles). It is recommended, however, that you ask your STORCK dealer to fit your STORCK-RADDAR pedelec with a cycle computer that also determines the average speed directly on purchase.

The cycle computer **(a)** as well as the control LEDs on the battery **(b)** (five-stage from "full" to "empty") will help you gaining experience on the relation between riding performance and (battery) range under your riding habits.

And in case it turns out that the capacity of the battery is not big enough to reach your destination, you benefit from the decisive advantage of the STORCK-RADDAR pedelec over a pure motor vehicle. Without drive assistance it can be used like a conventional bicycle with unlimited range and in view of the inferior additional weight of auxiliary drive (4.5 kg) and battery (approx. 2.5 kg) nearly without losses in terms of riding characteristics.

The control LEDs on the display **(c)** indicate the state of stress of the system. The battery's state of charge is indicated on the battery's control display.

To extend the range it is recommended that you ride with low or no assistance at all on level or downhill trails and only fall back on maximum drive assistance with headwinds, heavy additional loads and/or when climbing hills.

Do a test ride to make yourself familiar with the riding characteristics of your STORCK-RADDAR pedelec and the possibly higher speed and acceleration, before riding on public roads. Risk of accident!

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Do not step on the pedals before sitting in the saddle, push the thumb lever at the control unit in position "L" (d) ***for lowest drive assistance and be ready to brake when you set off. Risk of accident!***

Keep in mind that due to the higher driving power at the rear wheel (e) ***the risk of an accident increases with slippery roads (due to wetness, snow, gravel etc.). This applies all the more when riding bends. Risk of accident!***

Please note that car drivers may underestimate your speed. Therefore, always ride on public roads with this fact in mind and anticipate the actions of other road users. Risk of accident!

Keep in mind that pedestrians do not hear you when you approach at high speed. Therefore, ride particularly defensive and anticipating when using cycle lanes and cycle/footpaths to avoid accidents (f)**.**

OPERATION AND DISPLAYS

Please unfold the cover of the supplementary instructions of this STORCK-RADDAR pedelec. The diagram shows the display with all control elements and values. Leave this page unfolded as you read so that you can easily locate the switches/buttons and displays as they are referred to in the text.

On the Control Unit (g)

- On/off rocker switch
- Thumb lever for continuous setting of drive assistance from low ("L") to maximum ("H").

On the Rechargeable Battery (h)

- Check button
- 5 red LEDs for battery charge state
  With 5 LEDs lighting up the battery of your STORCK-RADDAR pedelec is fully charged. With 1 LED lighting up the battery is almost empty. Recharge the battery immediately!

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RECHARGEABLE BATTERY

The rechargeable battery **(a)** is the electrical power storage for the auxiliary drive; it is fixed with a mounting device to the frame of your STORCK-RADDAR pedelec. This battery is charged with a special charger. To charge the battery you can either leave it mounted or remove it.

Do not charge the battery with another than the charger **(b)** delivered together with the battery, not even with one the electrical characteristics or plug contacts of which seem to comply with your battery.

Removing the Battery

Unlock the battery by turning the key anticlockwise **(c)**. Pull the battery upwards and remove it from the mounting device at the frame. We recommend that you always remove the key before setting off!

Make sure the plug contacts at the mounting device are not damaged, soiled or wetted while the battery is removed.

Charging the Battery

On delivery the rechargeable battery of your STORCK-RADDAR pedelec is usually not charged. Before you set off for the first time the battery needs to be fully charged.

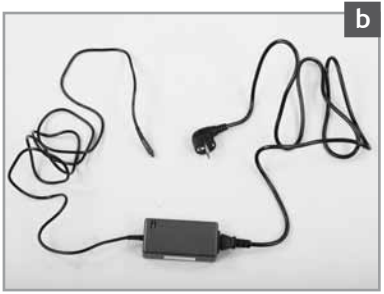
To check the battery's charge state press the check button on the left side of the battery **(d)**. The battery is fully charged when all five LEDs light up. With only one LED left, the battery must be recharged.

It is, however, recommended that you recharge the battery after every ride to benefit from the full range at all times. The battery of your STORCK-RADDAR pedelec has no memory effect; it can therefore be charged at any time without affecting battery life. For technical reasons the loading capacity of the rechargeable battery will, however, deteriorate with increasing battery life and after a certain number of (full) charging cycles.

For more details in this regard also read chapter **"Technical Specifications"**. If you have any questions, contact your STORCK dealer.

a

b



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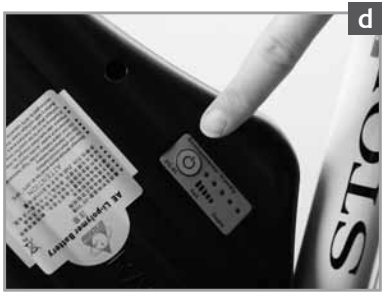

Charge your battery (e+f) only with the supplied charger. Do not use the charger of another manufacturer. Otherwise the rechargable battery may heat up, catch fire or even explode!

Keep the rechargeable battery and the charger away from moisture and water to exclude electric shocks and short circuits.

Keep rechargeable battery and charger (g) out of the reach of children!

Do not use a rechargeable battery or a charger that is defective. If you are in doubt or if you have any questions, contact your STORCK dealer.

Do not charge any other electrical devices with the supplied charger.

Charge the battery at an ambient temperature of approx. 20 degrees Celsius. Therefore, after a ride e.g. in cold weather, wait until the temperature of the battery has increased before starting the charging process (h).

If the rechargeable battery or the charger (or parts of it) must be replaced, only use original spare parts. In such a case, contact your STORCK dealer.

Do not dispose of your rechargeable battery with normal household rubbish! It must be disposed of according to battery disposal regulations. Therefore, retailers selling new rechargeable batteries must provide collection of old rechargeable batteries and appropriate disposal. If you are in doubt or if you have any questions, contact your STORCK dealer.

Please also observe the note referring to the battery disposal on the respective label on the battery.

e

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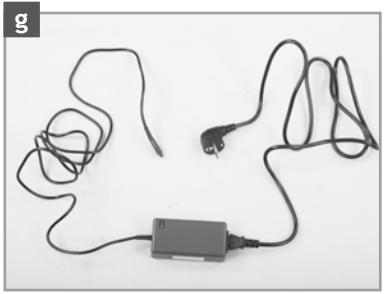

h

Charging Process

Connect the power cable to the supplied charger **(a)**. Put the mains plug into a 220V socket. A red LED lights up and another red LED blinks at the charger, i.e. the charger is ready for the charging process.

Put the charging plug into the charging socket on the right side of the rechargeable battery **(b)**. The second LED lights up red on the charger, i.e. the rechargeable battery is properly connected and the charging process has started.

You can check the current state of charge during the charging process by pressing the check button **(c)** on the rechargeable battery. One to five LEDs on the rechargeable battery will light up.

When the second LED on the charger will light up green, the charging process is complete. Pull the charging plug out of the rechargeable battery. Pull the mains plug out of the socket and disconnect the mains cable from the charger.

A complete charging process takes five to eight hours. A rechargeable battery with a bigger charging capacity may even take longer.

For more information about the rechargeable battery including technical specifications read the label of the battery charger as well as chapter "Technical Specifications".

Mounting the Battery

Place the rechargeable battery on the mounting device **(d)** at the frame and move it slightly upwards until the guide lugs of the battery shell slide into the grooves of the mounting device. Subsequently, slide it downwards until the plug contacts fit snugly. Finish by turning the key clockwise.

Always make sure you have pulled out the key before you set off!

a

b

c

d

Battery Care

Storing the Battery

Remove the rechargeable battery **(e)**, if you do not use the STORCK-RADDAR pedelec for a longer period of time (e.g. during the winter season). Store it in a dry room at temperatures between 5 and 20 degrees Celsius. The state of charge should be 50-70 % of the charging capacity (equal 3 to 4 LEDs on the rechargeable battery) **(f)**. Check the state of charge, if the rechargeable battery is left unused for more than two months and recharge it, if necessary.

Please make sure not to expose the battery to direct sunlight. Otherwise the cells are at risk of ageing rapidly and in the extreme case of overheating. Danger of explosion!

Cleaning the Battery

Clean the battery shell with a dry or, if at all, a slightly moist rag **(g)**. Do not direct the water jet of a high-pressure cleaner at the rechargeable battery, as there is a risk of water entry and/or a short-circuit.

STORCK-RADDAR PEDELEC DRIVE – SPECIAL FEATURES

Chain Wear

The drive chain is a wearable part of your STORCK-RADDAR pedelec. As the auxiliary drive of your STORCK-RADDAR pedelec is integrated directly in the rear wheel hub **(h)**, this does not mean a higher load for the drive chain compared to that of a conventional bicycle. In fact it is rather the opposite, as the drive force applied by the rider is usually inferior to that he would apply on a conventional bicycle. For more information about chain wear and maintenance see chapter **"Chain"** of your STORCK user manual mountain bike.

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STORCK-RADDAR PEDELEC WHEELS AND TYRE EQUIPMENT – SPECIAL FEATURES

Puncture (Rear Wheel)

For detailed information about repairing a puncture see chapter **"Puncture"** of your STORCK user manual mountain bike. Besides spare tube or puncture kit, two tyre levers and a pump **(a)**, you only need an 8-mm and a 15-mm open-end wrench as well as a 4-mm Allen key.

The puncture risk can be reduced by using special puncture sealants. Your STORCK dealer will be pleased to help you.

Wheel Removal

Shift the rear derailleur to the outmost, smallest sprocket where it does not interfere with the removal of the wheel. Switch off the auxiliary drive and disconnect the cable plug at the drop-out on the side opposite the chain **(b)**. Remove the battery from the mounting and undo the cable-tie.

Release the bolted connection of the torque arm **(c)** completely on the side opposite the chain and unscrew both axle nuts by two to three turns subsequently. Also remove the bolt of the torque arm.

You will find it easier to remove the rear wheel, when you pull the rear derailleur slightly backwards **(d)**.

Lift the STORCK-RADDAR pedelec off the ground and give the wheel a gentle tap with your hand so that it drops out.

Rotors can become hot, so let them cool down before removing a wheel.

Do not pull the (disc) brake lever with a removed wheel and make sure to mount the safety locks when removing the wheel.

Release the bolt of the torque arm only, do not remove it entirely. Otherwise there is the risk of the axle turning which may damage the cable.

a

b

c

d

Wheel Mounting

Mounting the wheel is done in the reverse order of dismounting. Check before mounting the wheel whether the brake pads rest snugly in their seats in the brake calliper body. The gaps between the brake pads and the wheel should be parallel and the wear indicators in their correct position. Make sure you guide the rotor carefully between the brake pads and the chain is on the smallest sprocket. Make sure the wheel is correctly seated in the drop-outs and accurately centred between the seat and chain stays.

Realign the torque arm with its mounting on the frame and tighten the holding screws a little. Tighten the axle nuts to the prescribed torque setting of 40 Nm and subsequently the bolted connection of the torque arm to 8 Nm (e). Reconnect the cable plugs. Attach a cable tie (f).

Pull the brake lever (g) several times after mounting the wheel. Lift the STORCK-RADDAR pedelec off the ground and spin the wheel. With the wheel spinning the rotor should not drag along the brake calliper or the brake pads.

Before setting off again check that the rotors are still free of grease or other lubricants after the wheel mounting **(h).**

Always do a brake test as described in chapter "Before Every Ride"!

Tyre Wear

Due to higher driving forces the tyre of the rear wheel can wear down faster than with a conventional bicycle. Therefore, check the tread depth regularly and replace a worn tyre in time.

For more information about tyre wear see chapter **"Wheels and Tyre Equipment"** of your STORCK user manual mountain bike.

TAKING THE STORCK-RADDAR PEDELEC WITH YOU

By car

STORCK-RADDAR pedelecs can be transported like conventional bicycles outside (a) or inside the car. For more information see chapter **"Taking the Bicycle by Car"** of your STORCK user manual mountain bike.

Make sure to remove all movable and loose parts and above all the rechargeable battery (b+c) from your STORCK-RADDAR pedelec before transporting it inside or outside the car.

If necessary, inform yourself about the laws and regulations concerning bicycle/pedelec transport in the countries that you intend to transit during your journey. The laws and regulations differ, e.g. with regard to the marking.

Observe the permitted maximum load of your bicycle rack.

By rail and public transport

STORCK-RADDAR pedelecs can be transported like conventional bicycles by public transport. Before embarking remove, if necessary, heavy or bulky panniers and baggage as well as the rechargeable battery to facilitate the handling.

If necessary, inform yourself about the laws and regulations concerning bicycle/pedelec (d) transport in the countries that you intend to transit during your journey.

By plane

Contact the airline with which you intend to travel in time and inform yourself about conditions and possibilities of taking your STORCK-RADDAR pedelec with you.

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c

d

TROUBLE SHOOTING

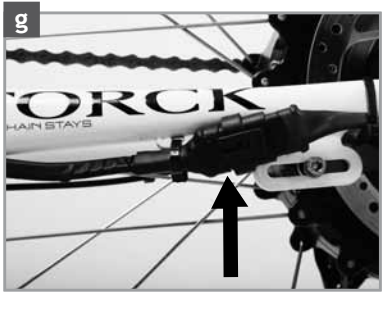
During the Ride

The auxiliary drive cannot be switched on – the LEDs on the control unit do not light up (e): Check the battery's charge state by pressing the check button and observing the charge state LEDs. Check the proper seat of the rechargeable battery in the mounting device. If you still cannot switch on the auxiliary drive, ride on without drive assistance. Contact your STORCK dealer immediately.

The auxiliary drive does not work, although the on/off rocker switch is on "I" (f) and the LEDs on the control unit light up: Stop and switch off the drive. Check the proper seat of the rechargeable battery in the mounting device as well as the plug-in connection on the rear drop-out (g) that is on the side opposite the chain. If the auxiliary drive still does not work after restarting, switch it off and ride on without drive assistance. Contact your STORCK dealer immediately.

The auxiliary drive does not work, as usually, e.g. it propels the STORCK-RADDAR pedelec without your pedalling: Stop immediately. Switch off the drive (h) and restart it after 15 seconds. If the problem persists, switch off the drive and ride on without drive assistance. Contact your STORCK dealer immediately.

The drive is permantly in the recuperation mode: Stop immediately. Switch off the drive and restart it after 15 seconds. If the problem persists, switch off the drive and ride on without drive assistance. Contact your STORCK dealer immediately.



During the Charging Process

The red LEDs on the charger do not light up: Check the contact **(a)**. If the problem persists, contact your STORCK dealer.

The second LED keeps on blinking, although the charging plug is connected on the right side of the rechargeable battery: Pull the charging plug out and disconnect the charger from the mains **(b)**. Wait about a minute and restart a new charging process. If the problem persists, check the temperature of the battery. If it is very cold, wait until it has ambient temperature and restart only then a new charging process. If the problem persists, contact your STORCK dealer.

The second LED flashes green after a very short period of time, although the battery is not fully charged: Contact your STORCK dealer.

SERVICING AND MAINTENANCE

Your STORCK dealer will have assembled and adjusted your STORCK-RADDAR pedelec ready for use when you come to collect it. Nevertheless, your STORCK-RADDAR pedelec needs regular care **(c)**. Have your local STORCK dealer do the scheduled maintenance work. This is the only way to ensure that all components function safely and reliably for many miles.

The bicycle will be due for its first service after 100 to 300 kilometres (60 to 180 miles), three to six weeks or 5 to 15 hours of initial use. The bedding in phase typically involves spokes slightly losing tension or gears becoming out of adjustment, so there is every reason to have your dealer service the STORCK-RADDAR pedelec at this stage.

This bedding and settling in process is unavoidable. Therefore, remember to make an appointment with your STORCK dealer for the first inspection of your new STORCK-RADDAR pedelec. The first service is very important for both functioning and durability of your STORCK-RADDAR pedelec.

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d

The intended use of the STORCK-RADDAR pedelec includes regular servicing and the replacement of wearable parts in time, e.g. brake pads **(d)** or Bowden and brake cables **(e)**, and therefore has an influence on the warranty, as well.

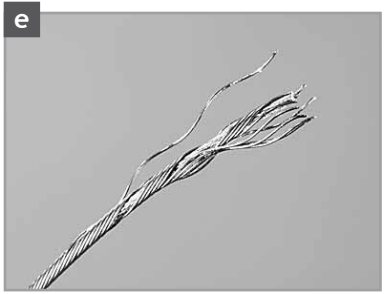
It is advisable to have your STORCK-RADDAR pedelec serviced regularly by your STORCK dealer after the bedding in phase. If your bicycle does harder service, because you ride a great deal on poor road surfaces, it will require correspondingly shorter service periods. The off-season during the winter months is a very good time to take your STORCK-RADDAR pedelec to your STORCK dealer for the annual inspection, as they will have plenty of time for you and for servicing.

Servicing and repairs are jobs best left to your STORCK dealer. If you have your bicycle serviced by anyone else than an expert, you run the risk that parts of your STORCK-RADDAR pedelec will fail. Risk of accident! When working on your STORCK-RADDAR pedelec restrict yourself to jobs for which you are equipped e.g. with a torque wrench including bits (f) and have the necessary knowledge.

If a component needs to be replaced, make it a rule to only use original spare parts (g). Wearing parts of other manufactuers, e.g. brake pads or tyres (h) that are not of identical size, may cause harm to the safety of your STORCK-RADDAR pedelec. Risk of accident!

For your own safety, bring your STORCK-RADDAR pedelec to your STORCK dealer for its first inspection after 100 to 300 kilometres (60 to 180 miles), 5 to 15 hours of initial use or three to six weeks, at the very latest, however, after three months.

e



f

g

h

TECHNICAL SPECIFICATIONS

Drive Unit (a)

Continuous rated power:	250 W
Torque at drive (max.):	35 Nm
Nominal voltage:	24 Volt
Operating temperature:	-20° Celsius/-4° Fahrenheit to +60° Celsius/+140° Fahrenheit
Storage temperature:	-25° Celsius/-13° Fahrenheit to +75° Celsius/+167° Fahrenheit
Protection class:	IP64
Weight:	4.7 kg
Weight battery:	

Control Unit (b)

Operating temperature:	-20° Celsius/-4° Fahrenheit to +60° Celsius/+140° Fahrenheit
Storage temperature:	-25° Celsius/-13° Fahrenheit to +75° Celsius/+167° Fahrenheit
Protection class:	IP61
Weight:	0.08 kg

Lighting (c+d)

Nominal voltage:	6 Volt
Performance front lamp:	40 Lux

WARRANTY AND GUARANTEE

You have full warranty rights for the RADDAR auxiliary drive within the first two years after purchase.

Rechargeable batteries are wearable parts. Nevertheless, the rechargeable battery of your STORCK-RADDAR pedelec is warranted one year or 500 charge cycles depending on what is reached first.

STORCK BICYCLE

RADDAR

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